

JavaScript Dia 1

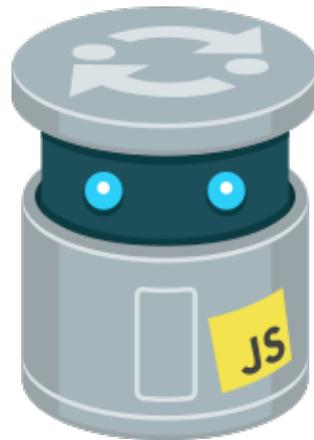
Uma linguagem versátil usada em Frontend
e Backend



O que o browser entende



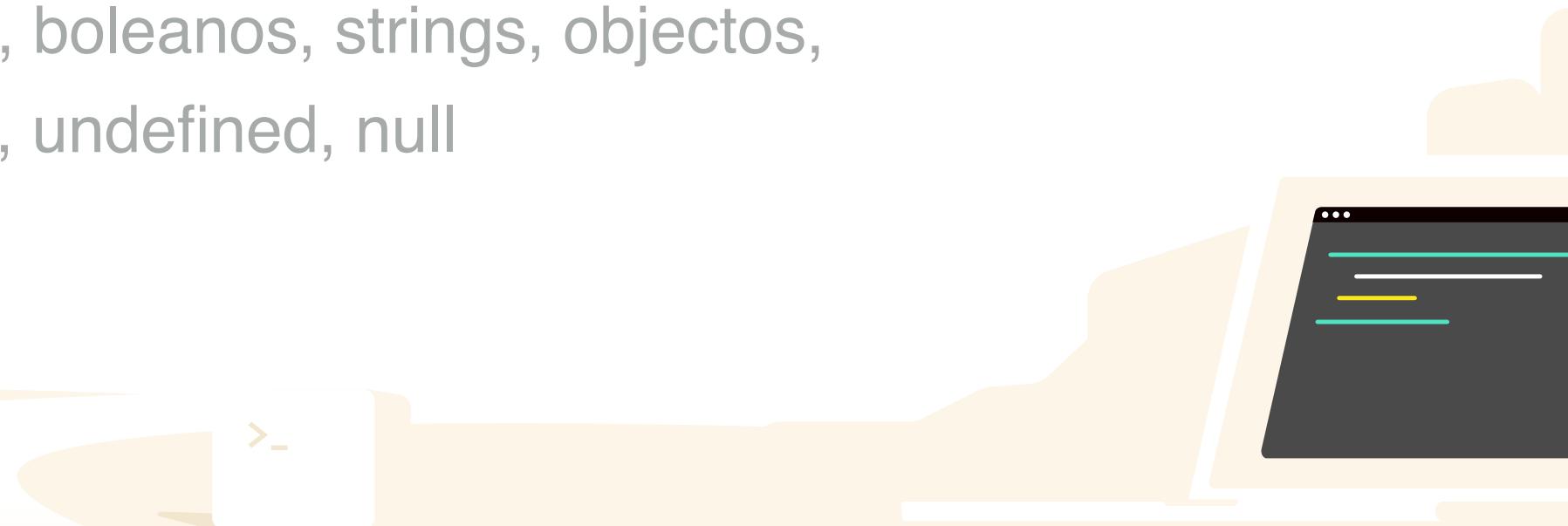
Editor de código: JS Bin



(<https://jsbin.com/?html,js,output>)

Tipos de dados básicos.

Números, booleanos, strings, objectos,
Variáveis, undefined, null



Números

42

3.14

1

0

-100



The screenshot shows a browser window for JS Bin with the URL jsbin.com/vewoyunihu/edit?js,console. The JavaScript pane contains the following code:

```
console.log(typeof(42));
console.log(typeof(3.14));
console.log(typeof(1));
console.log(typeof(0));
console.log(typeof(-100));
```

The Console pane shows the output for each log statement:

- "number"
- "number"
- "number"
- "number"
- "number"

At the bottom right of the JS Bin interface are "Run" and "Clear" buttons.

Boleanos

true

false



The screenshot shows a browser window titled "JS Bin - JS Bin" with the URL "jsbin.com/vewoyunihu/edit?js,console". The JS Bin interface includes tabs for "HTML", "CSS", "JavaScript", "Console", and "Output". The "JavaScript" tab contains the code:

```
console.log(typeof(true));
console.log(typeof(false));
```

The "Console" tab displays the output:

```
"boolean"
"boolean"
```

There are also "Run" and "Clear" buttons in the Console tab.

Strings

“John”

“John Lennon”

“a”

“”



A screenshot of the JS Bin web application. The browser title bar says "JS Bin - JS Bin". The address bar shows "jsbin.com/vewoyunihu/edit?js,console". The interface includes tabs for "HTML", "CSS", "JavaScript", "Console", and "Output". The "Console" tab is active, showing four entries: "string", "string", "string", and "string". The "JavaScript" tab contains the following code:

```
console.log(typeof("John"));
console.log(typeof("John Lennon"));
console.log(typeof("a"));
console.log(typeof(""));
```

Objectos

Criar um objecto

```
const meuCarro = new Object();
```

```
meuCarro.marca = "Ford";
```

```
meuCarro.modelo = "Mustang";
```

```
meuCarro.ano = 1969;
```



Objectos

Ler um objecto

`meuCarro["marca"]`

`meuCarro.marca`

Modificar um objecto

`meuCarro.marca = "Opel"`



Undefined e null

```
let age; // undefined  
let name = null;
```



Variável



Variáveis

let or const

```
let sum = 0;
```

// valor de sum pode ser modificado

```
const firstName = "João";
```

// valor de firstName não pode ser modificado



Variável



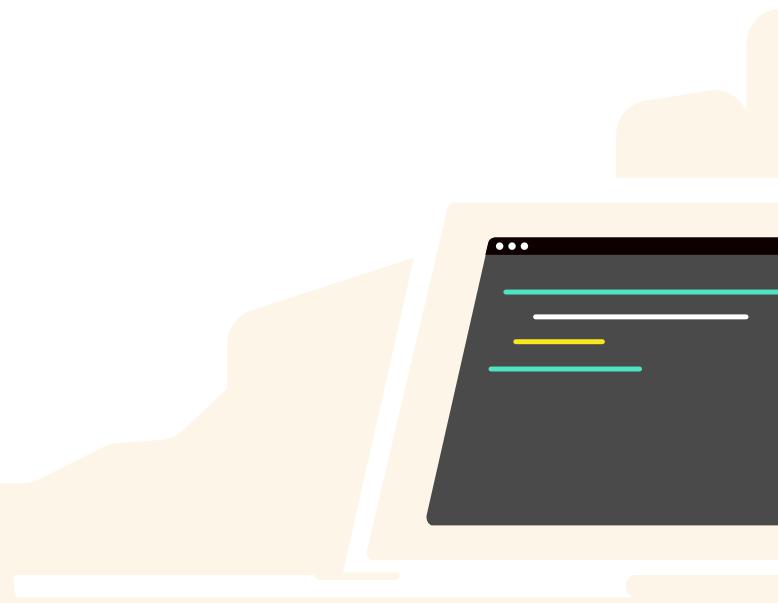
```
const firstName = "João";
```

```
console.log(firstName);
```



Condições.

If, else if , else



If

```
if (tempo === “chuva”) {  
    console.log(“Levar chapéu-de-chuva”);  
}
```



If / else

```
if (tempo === "chuva") {  
    console.log("Levar chapéu-de-chuva");  
} else {  
    console.log("Levar óculos de sol");  
}
```



If / else if / else

```
if (tempo === "chuva") {  
    console.log("Levar chapéu-de-chuva");  
} else if (tempo === "tempestade") {  
    console.log("Ficar em casa");  
} else {  
    console.log("Levar óculos de sol");  
}
```



Álgebra com booleanos

`&&, ||`



And

```
const result = a && b;
```

a	b	result
false	false	false
false	true	false
true	false	false
true	true	true



```
const username = “Pedro”
```

```
const password = 1234
```

```
if (username == “Pedro” && password == 1234) {  
    console.log(“You’re logged in!”)  
}
```



Or

Const result = a || b;

a	b	result
false	false	false
false	true	true
true	false	true
true	true	true



```
const morning = "9:00-13:00"
```

```
const afternoon = "14:00-17:00"
```

```
if (morning == "9:00-13:00" || afternoon == "14:00-17:00") {  
    console.log("The store is open")  
}
```



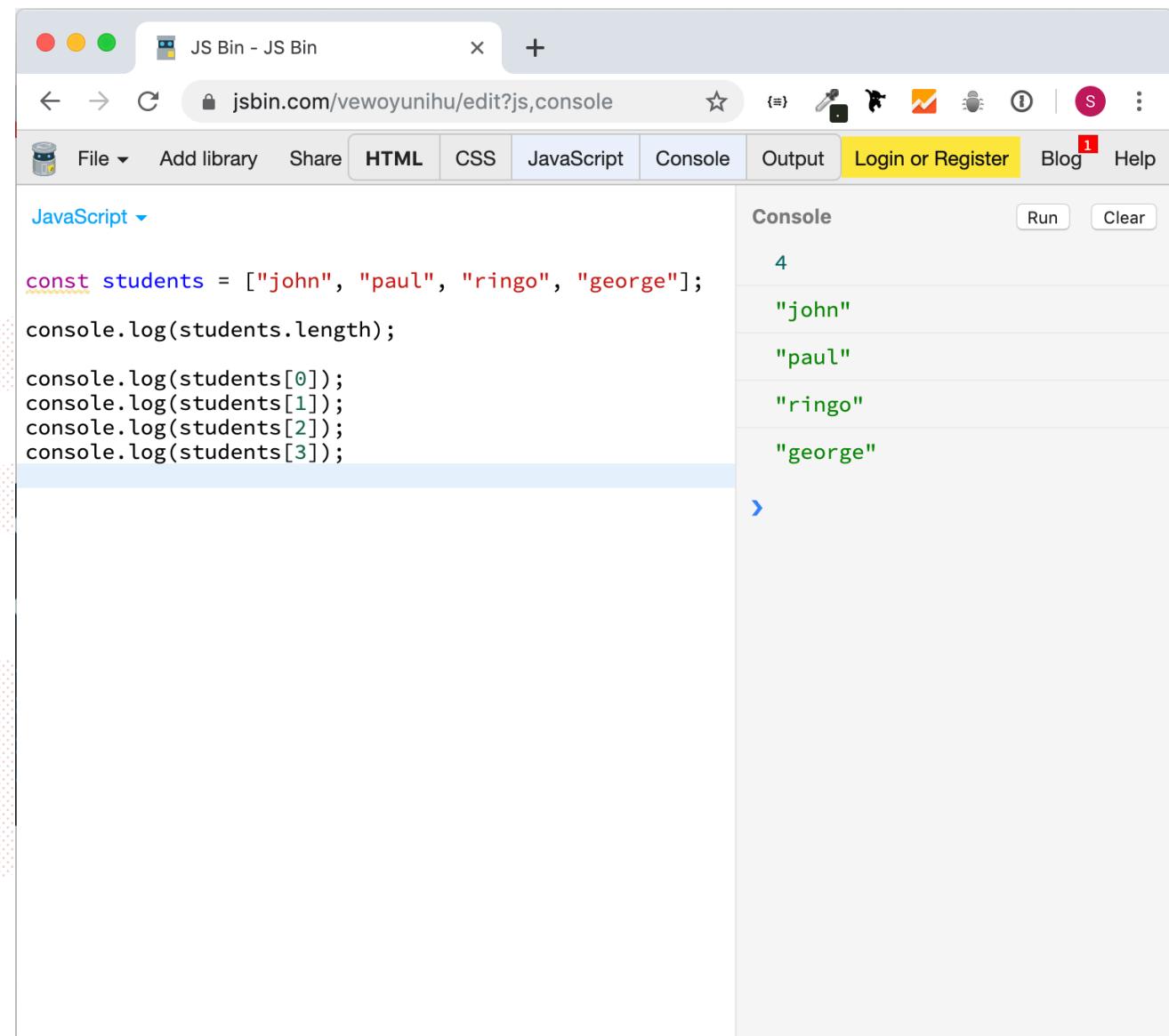
Loops e iterações.

for, forEach



Array

const students = []



A screenshot of the JS Bin web application interface. The title bar says "JS Bin - JS Bin". The URL in the address bar is "jsbin.com/vewoyunihu/edit?js,console". The top navigation bar includes "File", "Add library", "Share", "HTML", "CSS", "JavaScript", "Console", "Output", "Login or Register" (which is highlighted in yellow), "Blog" (with a red notification badge), and "Help". The "JavaScript" tab is selected. In the code editor, the following code is written:

```
const students = ["john", "paul", "ringo", "george"];
console.log(students.length);
console.log(students[0]);
console.log(students[1]);
console.log(students[2]);
console.log(students[3]);
```

The "Console" panel on the right shows the output of the code:

- 4
- "john"
- "paul"
- "ringo"
- "george"

There are also "Run" and "Clear" buttons in the console header.



For loop



A screenshot of a web browser window titled "JS Bin - JS Bin". The address bar shows "jsbin.com/vewoyunihu/edit?js,console". The browser interface includes standard controls like back, forward, and search, along with developer tools icons. The top navigation bar has tabs for File, Add library, Share, HTML (which is selected), CSS, JavaScript, Console, and Output. Below the tabs, there are buttons for Login or Register, Blog (with a '1' notification), and Help.

The main area is a code editor with a "JavaScript" dropdown menu. The code is as follows:

```
const students = ["john", "paul", "ringo", "george"];
for (let i = 0; i < students.length; i += 1) {
  console.log(students[i]);
}
```

To the right of the code editor is a "Console" panel. It contains the output of the console.log statements:

- "john"
- "paul"
- "ringo"
- "george"

At the bottom of the console panel is a blue arrow pointing to the right.

Iteration: forEach



A screenshot of the JS Bin web application interface. The title bar shows "JS Bin - JS Bin". The navigation bar includes links for File, Add library, Share, HTML (selected), CSS, JavaScript, Console, Output (highlighted in yellow), Login or Register, Blog (with a '1' notification), and Help. The main area has tabs for JavaScript (selected) and CSS. The JavaScript tab contains the following code:

```
const students = ["john", "paul", "ringo", "george"];
students.forEach((student) => {
  console.log(student);
})
```

The Output tab shows the results of the console.log statements:

```
"john"
"paul"
"ringo"
"george"
```

At the bottom left of the slide is a red circular icon containing a white bus icon.

Obrigada!



le wagon



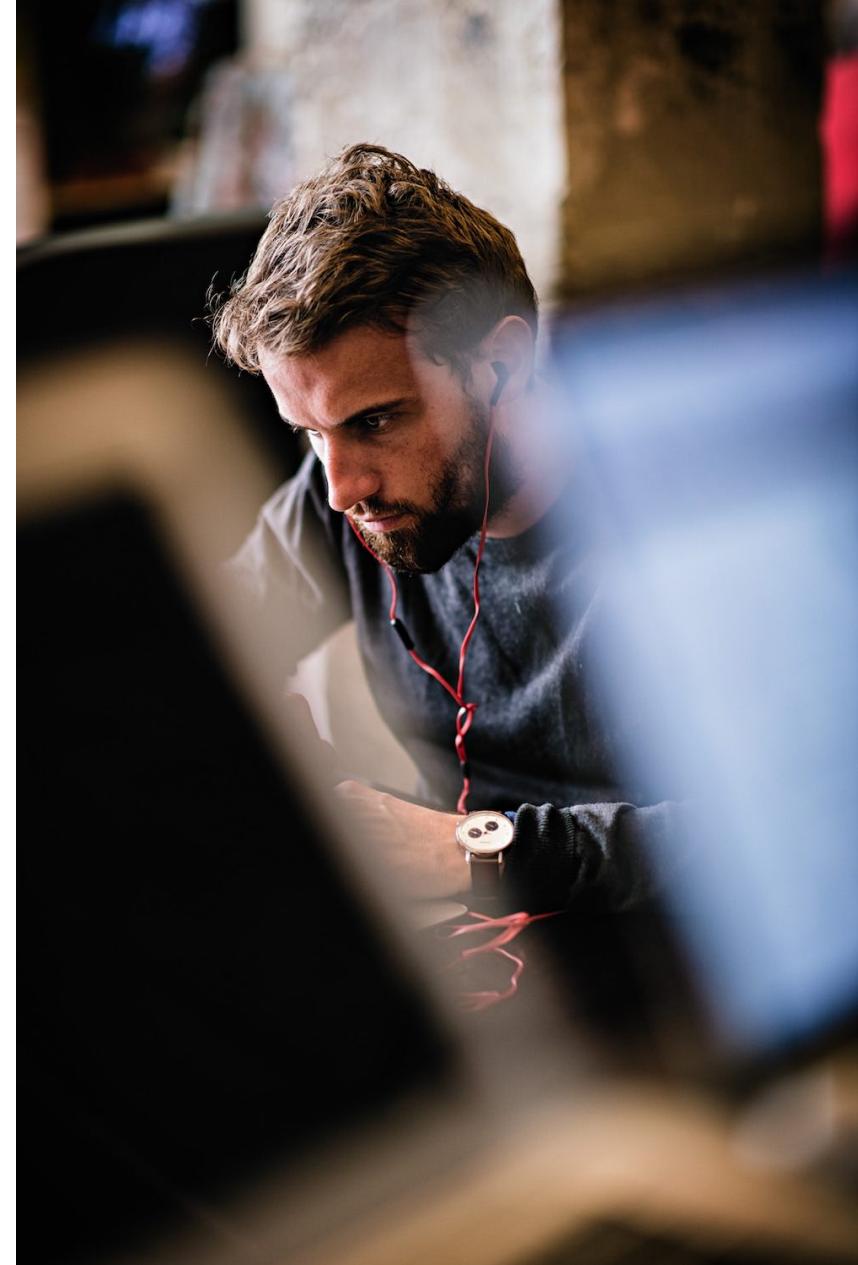
JavaScript Dia 2

Uma linguagem versátil usada em Frontend
e Backend



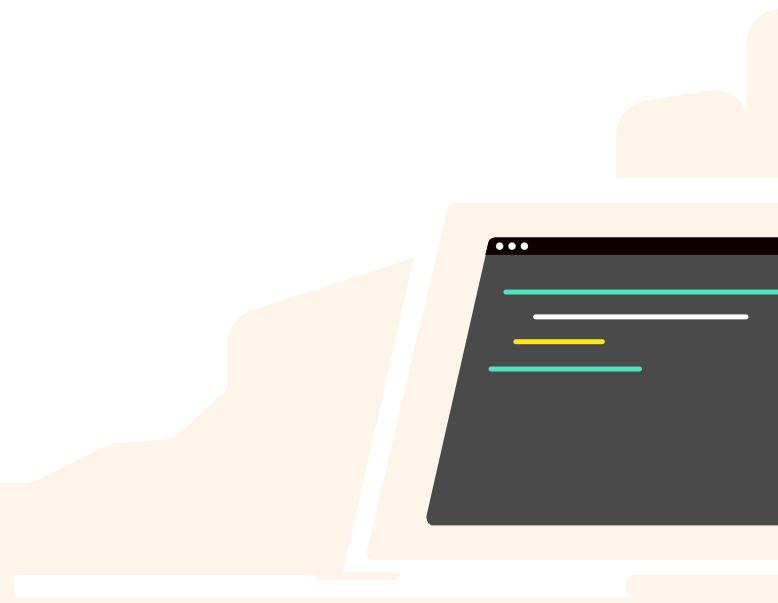
Índice.

Manipulação do DOM
Handling de eventos

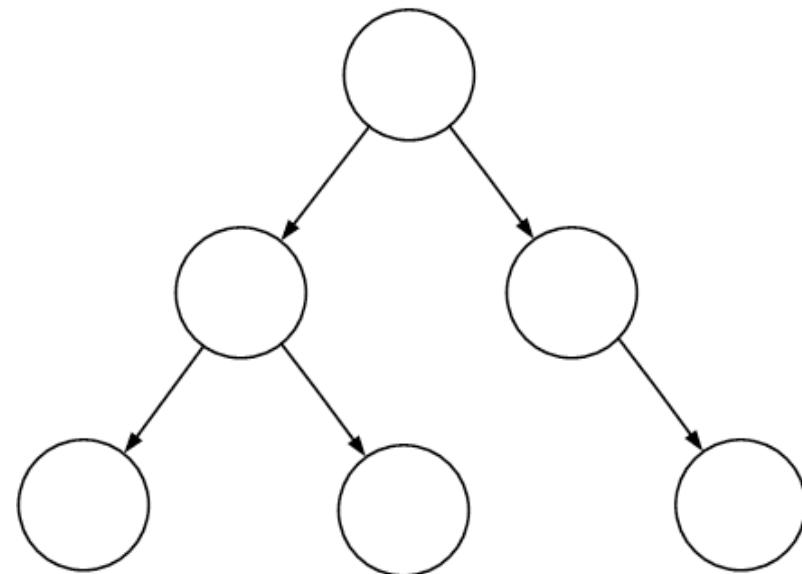


DOM.

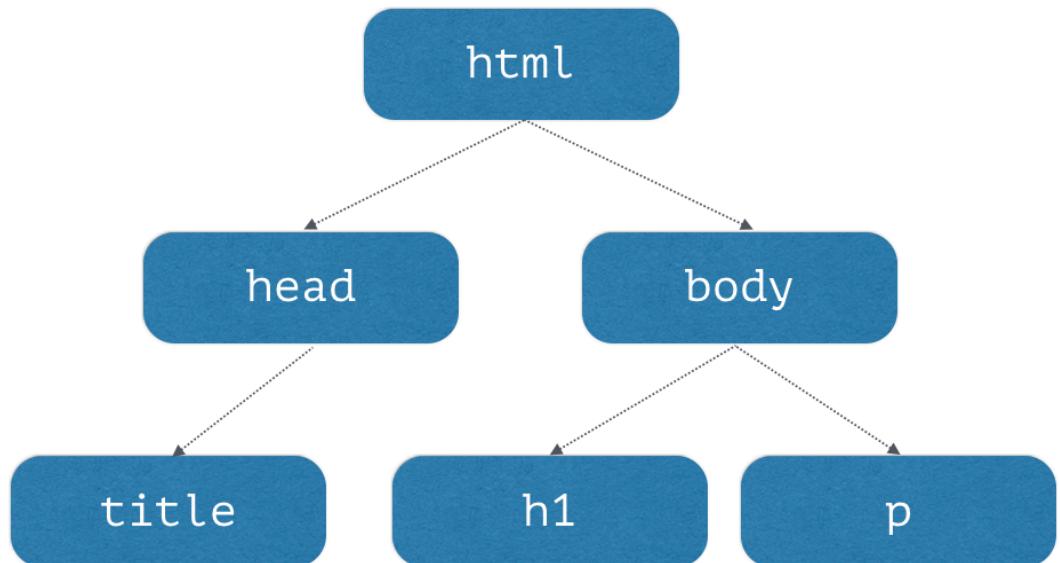
Document Object Model



O que é o DOM?



```
<html>
  <head>
    <title>Hello</title>
  </head>
  <body>
    <h1>
      Hello
    </h1>
    <p>
      Lorem Ipsum..
    </p>
  </body>
</html>
```



O DOM no browser

The screenshot shows a browser window displaying the "Perdu sur l'Internet?" page from perdu.com. The browser interface includes a title bar, a toolbar with icons, and a menu bar. The main content area shows the page's HTML structure and styling.

Page Content:

```
<html>
  <head>
    <title>Vous Etes Perdu ?</title>
  </head>
  <body cz-shortcut-listen="true">
    <h1>Perdu sur l'Internet ?</h1>
    <h2>Pas de panique, on va vous aider</h2>
    <strong>...</strong>
  </body>
</html> == $0
```

Developer Tools - Elements Tab:

- Elements tab is selected.
- HTML tree view showing the structure of the page.
- Console tab is visible.
- Sources, Network, Performance, Memory, Application, Security, Audits tabs are present.

Developer Tools - Styles Tab:

- Styles tab is selected.
- Filter bar: `:hov .cls +`
- Element style rules:

```
element.style { }
```
- Global style rules:

```
html {
  display: block;
  color: -internal-root-color;
}
```
- Box model diagram showing margin (orange), border (yellow), and padding (green) layers.



Interagir com o DOM

```
document.querySelector(CSS_SELECTOR);
```

```
document.querySelectorAll(CSS_SELECTOR);
```

html tag => p

class => .red

id => #players

```
document.getElementById(ID);
```

id => players



Selecionar um elemento

A screenshot of a web browser window showing the developer tools console tab. The browser title is "Vous Etes Perdu ?" and the URL is "Not Secure | perdu.com". The page content is "Perdu sur l'Internet ?" with an

element. The developer tools console shows the following code:

```
> const header = document.querySelector('h1');
<- undefined
> header
<- <h1>Perdu sur l'Internet ?</h1>
>
```

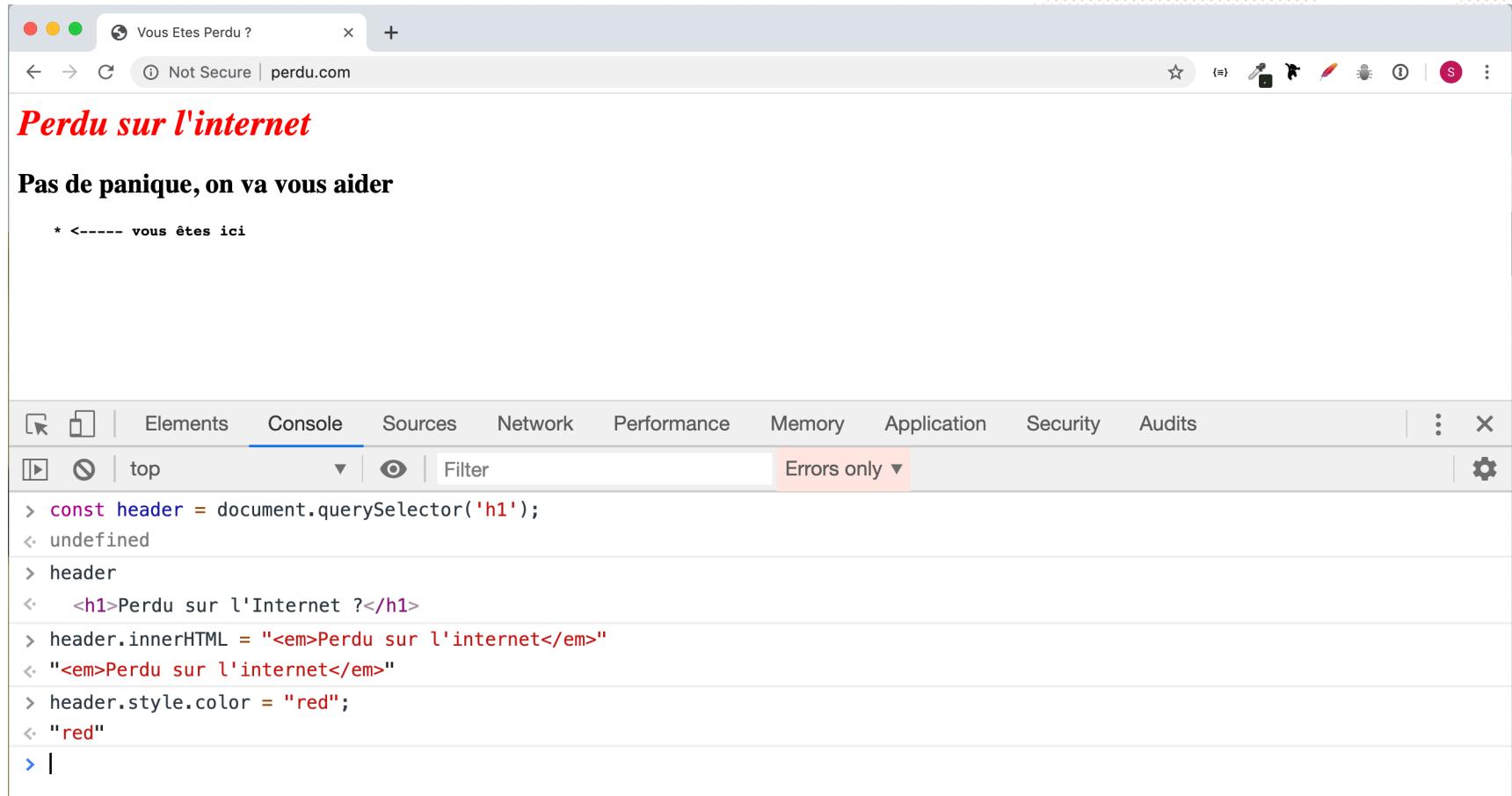


Modificar um elemento

```
element.classList.add("class");  
element.classList.remove("class");  
element.classList.toggle("class");  
element.innerText = "Podemos mudar o texto";  
element.innerHTML = "<strong> Hey </strong>";  
element.style.display = "none";
```



Modificar um elemento



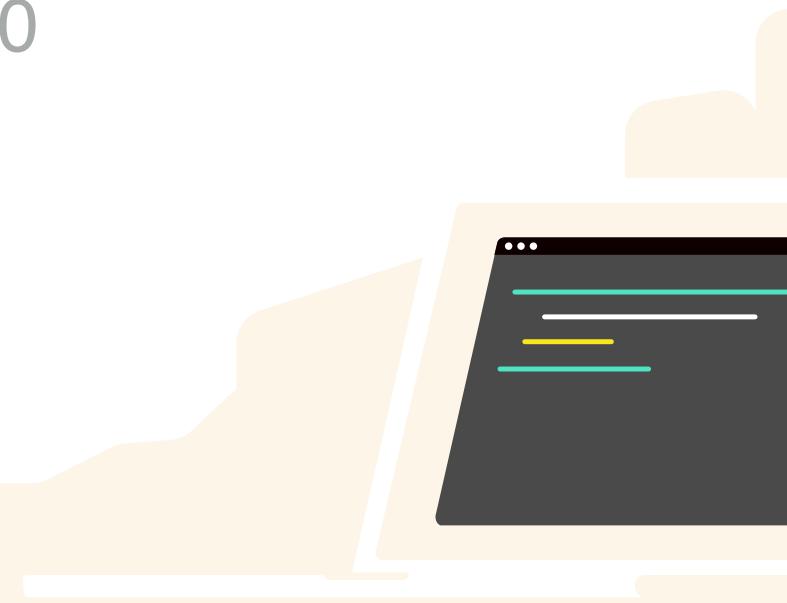
A screenshot of a browser window showing the developer tools console. The page title is "Vous Etes Perdu ?" and the URL is "Not Secure | perdu.com". The page content includes the text "Perdu sur l'internet" and "Pas de panique, on va vous aider". The developer tools console tab is active, showing the following JavaScript code:

```
> const header = document.querySelector('h1');
< undefined
> header
<   <h1>Perdu sur l'Internet ?</h1>
> header.innerHTML = "<em>Perdu sur l'internet</em>"
<   "<em>Perdu sur l'internet</em>"
> header.style.color = "red";
<   "red"
> |
```



Handling de eventos.

Modificar o DOM através de um evento



Os eventos ocorrem em objectos específicos

click	# quando um elemento é clicado
keydown	# quando a tecla é pressionada
keyup	# quando a tecla é solta
scroll	# quando é feito scroll num elemento/janela
submit	# quando um formulário é submetido
paste	# quando um elemento é copiado



AddEventListener

```
const button = document.querySelector('#play-button');

button.addEventListener('click', (event) => {
    // Fazer alguma coisa quando o botão é clicado
});
```



Live-code!

Obrigada!



le wagon

